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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,400	03/19/2001	Lester F. Ludwig	LUDW-001/02-03US	7356
616	7590	01/11/2006	EXAMINER FLETCHER, MARLON T	
THE MAXHAM FIRM 750 "B" STREET, SUITE 3100 SAN DIEGO, CA 92101			ART UNIT 2837	PAPER NUMBER

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/812,400

Applicant(s)

LUDWIG, LESTER F.

Examiner

Marlon T. Fletcher

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) .<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)               |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 30-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki (5,981,859).

Suzuki (claim 30) discloses a control signal processing system (fig. 2) for responsively generating Midi control signals, said system comprising'. an incoming control signal interface (11/56) adapted to receive an incoming MIDI control signal; a controllable low frequency oscillator (17) comprising at least one parameter (12/13), said at least one parameter comprising a value selectable from a plurality of values, wherein said value of said at least one parameter is determined by said incoming MIDI control signal (13), and wherein said controllable low frequency oscillator is adapted to generate an outgoing MIDI control signal responsive to said value of said at least one parameter; and an outgoing control signal interface (figure 2) adapted to communicate said outgoing MIDI control signal.

Suzuki (claim 31) discloses the system, wherein frequency of said controllable low frequency oscillator is controlled by said value of said at least one parameter

(column 3, lines 49-64).

Suzuki (claim 32) discloses the system, wherein a waveform of said controllable low frequency oscillator is controlled by said value of said at least one parameter (col. 4, lines 4-9).

Suzuki (claim 33) discloses the system, further comprising: a plurality of controllable low frequency oscillators, each composing at least one parameter, wherein said at least one parameter, for each of said plurality of controllable low frequency oscillators, comprises a value selectable from a plurality of values, wherein said value of said at least one parameter is determined by said incoming MDI control signal, and wherein each of said plurality of controllable low frequency oscillators is adapted to generate a separate outgoing MIDI control signal responsive to said at least one parameter (Figure 9., and col. 9, lines 1-5).

Suzuki (claim 34-39) discloses the system, wherein one of said plurality of controllable low frequency oscillators is a master low frequency oscillator', wherein at least one of said plurality of controllable low frequency oscillators is a slave low frequency oscillator producing an oscillation that is driven by said master low frequency oscillator; wherein said slave low frequency oscillator produces an oscillation that is phase shifted; wherein said slave low frequency oscillator produces a waveform that is different from a waveform that is produced by said master low frequency oscillator; wherein phase of said slave low frequency oscillator is controlled by said value of said at least one parameter; wherein frequency of said master low frequency oscillator is controlled by said value of said at least one parameter (Figure 9., and column 8, line 40

through column 9, lines 54).

Suzuki (claim 40) discloses a control signal processing system for responsively generating MIDI control signals, said system comprising: an incoming control signal interface adapted to receive an incoming MIDI control signal', a controllable envelope generator (18) comprising at least one parameter, said at least one parameter comprising a value selectable from a plurality of values, wherein said value of said at least one parameter is determined by said incoming MIDI control signal, and wherein said controllable envelope generator is adapted to generate an outgoing MIDI control signal responsive to said value of said at least one parameter; and an outgoing control signal interface adapted to communicate said outgoing MIDI control signal.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Lindemann et al. (5,744,742).

Suzuki is discussed above. Suzuki does not disclose a ramp generator.

However, Lindemann et al. disclose the system, wherein said controllable envelope generator is a ramp generator (fig. 3, column 18, lines 27-31; and column 23,

lines 35-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize the teachings of Lindemann et al., because the enhancement provides the ability to ramp the envelope signal, thereby varying the sound.

5. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Clark Jr., et al. (4,365,533) and Wallace et al. (5,095,799).

Suzuki does not disclose a transient generator or slew limiter.

However, Clark Jr, et al. disclose a controllable envelope generator, which is a transient generator (469) as seen in figure 22 and 26.

Wallace et al. disclose the use of a controllable envelope generator which is a slew limiter (column 16, lines 7-17), wherein the envelope is varied to create a pleasing or desired sound.

It would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize the teachings of Clark Jr., et al. and Wallace et al. with the teachings of Suzuki, because the enhancement provides the ability to vary the envelope signal, to thereby create a desired sound signal.

6. Claims 43-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Sgroi (5,357,048).

Suzuki discloses a method for processing control signals to generate a non-merging mathematical function of values of said control signals, said method

comprising: obtaining a first control signal value from a first incoming real-time control signal and a second control signal value from a second incoming MIDI control signal (figures 2, 9, and 11-13); numerically multiplying (fast adding) said first control value and said second control value to produce a multiplied value (column 11, lines 39 through column 12, line 9); and generating an outgoing MIDI control signal based upon said multiplied (added) value (column 12, lines 10-14) wherein prior to said generating, said method further comprises: adding an offset, wherein said offset is determined by a third incoming control signal (figure 9); and generating an outgoing MDI control signal based upon said summed value.

Suzuki provides accumulation or summing rather than multiplying the multiple tones. Suzuki also fails to disclose velocity and note number values.

However, Sgroi discloses a method for processing control signals to generate a non-merging mathematical function of values of said control signals, said method comprising: obtaining a first control signal value from a first incoming real-time control signal (figures 1, 3, and 4)., obtaining a second control signal value from a second incoming MIDI control signal; numerically multiplying said first control value and said second control value to produce a multiplied value; and generating an outgoing MIDI control signal based upon said multiplied value (figures 1 and 3); wherein prior to said generating, said method further comprises: adding an offset to said multiplied value (figure 3)., wherein said offset is determined by a third incoming control signal; and generating an outgoing MDI control signal based upon said summed value (figures 3 and 4). Sgroi discloses identifying a temporal sequence of said first and second events

of said first and second incoming control signals (figures 1, 3, and 4).

Sgroi further discloses obtaining velocity and note number values as discussed in column 5, line 59 through column 6, line 15.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of Sgroi with the teachings of Suzuki, because the combination provide more control of the generated sound.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 30-60 have been considered but are moot in view of the new ground(s) of rejection.

The applicant makes many arguments to the last office action. First applicant argues the rejection under 35 USC 102 (b) of Suzuki. The examiner has changed the rejection to apply under 35 USC 102 (e). The reference teachings were not argued.

The applicant argued the Official Notice rejection. The wording could have been better written. However, references have been applied to show the well known teachings, which should be clear now.

The applicant argues that each claim is not identified in the rejection to claims 43-60. There is no requirement to identify each element with each claim, especially in a case where the claims are written in a manner to repeat language or vaguely change the language. All of the limitations of the claims are met by references applied in the rejection.



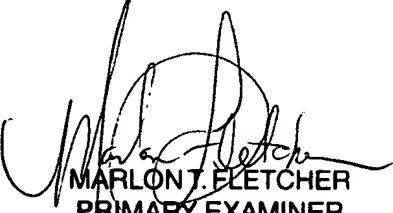
The claims are met by the prior art. In the broad manner written, the claims do not appear to provide any subject matter which would be considered allowable by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T. Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-w, F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MTF  
01/08/2006



MARLON T. FLETCHER  
PRIMARY EXAMINER